CLAIMS

I claim:

1.   A computer-readable medium having stored thereon a data structure, the data structure

separating storage of an attribute value from handling of the attribute value, the data structure

comprising:

> a) a model element class for implementing the constructs described by meta-data;
>
>   the model element class storing an attribute value;

> b) a meta-attribute information object for describing attributes of the model element
>
>   class; and

> c) a model element field handler object for accessing the attribute value stored in the
>
>   model element class.

2.   The computer-readable medium of claim 1, wherein the attribute value is stored in a

private member field of the model element class.

3. The computer-readable medium of claim 1, wherein the model element field handler object comprises a singleton pattern.

4. The computer-readable medium of claim 1, wherein the model element field handler object sets the attribute value sorted in the model element class.

5. The computer-readable medium of claim 1, wherein the model element field handler comprises a typed model element field handler subclass.

6. The computer-readable medium of claim 5, wherein the typed model element field handler subclass defines a get value function for accessing the attribute value.

7. The computer-readable medium of claim 5, wherein the typed model element field hanger subclass defines a set value function for setting the attribute value.

8. The computer-readable medium of claim 1, wherein the data structure further comprises

d) a meta-class information object for storing data associated with the model element.

9.   A computer-readable medium having stored thereon a data structure, the data structure

separating storage of an attribute value from handling of the attribute value, the data structure

comprising:

a) a container for storing meta-data in a tree structure;

b) a model element class for implementing the constructs described by meta-data;

the model element class storing an attribute value;

c) a meta-class information object for storing data associated with the model

element;

d) a meta-attribute information object for describing attributes of the model element

class; and

e) a model element field handler object for accessing the attribute value stored in the

model element class.

10.   The computer-readable medium of claim 9, wherein the container comprises a store

acting as the root of the tree structure.

11.   The computer-readable medium of claim 9, wherein the model element field handler object comprises a singleton pattern.

12.   The computer-readable medium of claim 9, wherein the model element field handler object sets the attribute value stored in the model element class.

13.   The computer-readable medium of claim 9, wherein the model element field handler comprises a typed model element field handler subclass.

14.   The computer-readable medium of claim 12, wherein the typed model element field handler subclass defines a get value function for accessing the attribute value.

15.   The computer-readable medium of claim 12, wherein the typed model element field hanger subclass defines a set value function for setting the attribute value.

16.   A method of accessing an attribute value within a data structure, the data structure separating storage of the attribute value from handling of the attribute value, the method comprising:

a) storing the attribute value in a private member field of a model element class;

b) declaring a nested handler class, the nested handler class being a subclass of a generic handler class;

c) issuing a get value function to obtain the attribute value from the model element class; and

d) receiving the attribute value from the model element class.

17. The method of claim 16, wherein the nested handler class inherits base functionality from the generic handler class.

18. A method of setting an attribute value within a data structure, the data structure separating storage of the attribute value from handling of the attribute value, the method comprising:

a) declaring a nested handler class, the nested handler class being a subclass of a

generic handler class;

b) issuing a set value function to set the attribute value for the model element class;

c) setting the attribute value; and

d) storing the attribute value in the model element class.

19. The method of claim 18, wherein the nested handler class inherits base functionality from

the generic handler class.